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**DESIGN AN ONLINE LEARNING SESSION FOR
TRAINING PROGRAM USERS**



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ABSTRACT

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When the Covid-19 pandemic hit the world, many organizations were forced to learn remote training ways to train their workforce and specially to implement different digital systems. Many organizations also noticed, how cost-efficient arranging good remote training sessions can be. This study focuses on the point of view of the customer which in this case is the learner and what are the best characteristics for learning and efficiency. This will help organizations offering remote training to design as efficient trainings as possible. The first research question in this study is about the benefits and disadvantages of online learning from the point of view of the customer. Furthermore, this study researches the future potential of digital learning ways after the pandemic. The study was done as semi-structured interviews, for which the questions were based on the previous literature in the field about the characteristics regarding online learning. The study was conducted in co-operation with a company that as a part of their business offers online learning and the interviewees were gathered from their clients. The study showed that regarding remote training the interviewees appreciate the efficiency, when they know what the sessions are going to be about and that they do not have to use time to get to a specific place for the session. Furthermore, the interviewees felt, that there were less distractions with online learning. Then on the other hand many felt like it was harder to interact with the presenter and other participants online. The study also showed that the interviewees would not like to go back to just on-location trainings but to rather have a hybrid model, where there are both on-location and remote training sessions.

Keywords: Online learning, e-learning, remote training, webinars, instructional videos

TIIVISTELMÄ

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Verkko-opetuksen suunnittelu ohjelmiston käyttäjien kouluttamiseen

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Koronapandemian iskiessä monet organisaatiot pakotettiin opettelemaan etätyötapoja myös työvoiman kouluttamiseen ja erityisesti erilaisten järjestelmien käyttöönottamiseen. Monet organisaatiot myös huomasivat kuinka kustannustehokasta hyvien etäkoulutusten järjestäminen voi olla. Tässä tutkimuksessa on tutkittu asiakkaan eli oppijan näkökulmasta mitkä ovat parhaat etäkoulutusten parhaat ominaisuudet oppimisen ja tehokkuuden kannalta. Tämä auttaa jatkossa etäkoulutuksia tarjoavia organisaatioita suunnittelemaan mahdollisimman tehokkaita koulutuksia.

Tutkimuskysymyksinä tutkimuksessa on ensinnäkin, että mitkä ovat verkko-oppimisen hyödyt ja haitat asiakkaan näkökulmasta sekä että mikä on digitaalisen oppimisen tapojen tulevaisuuden potentiaali pandemian väistyessä? Tutkimus tehtiin semistrukturoituina haastatteluina, joiden kysymykset pohjasivat aiemmin alan kirjallisuudessa esitettyihin ominaisuuksiin verkko-oppimisesta. Tutkimus tehtiin yhteistyönä yrityksen kanssa, joka tarjoaa osana omaa liiketoimintaansa verkkokoulutuksia ja heidän asiakkaansa toimivat tutkimuksessa haastateltavina. Tutkimuksessa selvisi, että haastateltavat arvostavat erityisesti etäkoulutuksissa niiden tehokkuutta, kun tiedossa on mitä käydään läpi ja aikaa ei tarvitse käyttää paikalle menoon. He kokivat muun muassa myös, että etäkoulutuksiin liittyy vähemmän häiriötekijöitä. Toisaalta taas moni koki vuorovaikuttamisen ohjaajan ja muiden osallistujien kanssa hankalammaksi etänä kuin paikan päällä. Haastatteluista selvisi myös, että haastateltavat eivät haluaisi enää palata pelkästään lähikoulutuksiin vaan mieluisin koulutusmalli olisi hybridimalli, jossa on mukana sekä etä- että lähikoulutuksia.

Asiasanat: Verkko-oppiminen, e-oppiminen, etäkoulutukset, webinaarit, ohjevideot

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1 INTRODUCTION

Since the Covid-19 pandemic hit the world by storm in the early spring of 2020 all, organizations and individual people were forced to learn to cope to interact through online communications systems. This affected also the way organizations were able to train their workforce. To keep the business running there had to be a way to effectively train new employees and to arrange additional training for more seasoned employees. This was eminent also for the training workforce to use digital systems since that had previously often been set up on location. Characteristics, that affect the effectiveness of these online learning sessions from the attendees' point of view, were studied in this master's thesis. This thesis was conducted as a case study about digital learning and its use by the workforce to train the usage of digital systems. The study focuses especially on three types of digital learning variations: remote training sessions, webinars and instructional videos. The literature review concluded that digital learning is gaining popularity because it does not have limitations concerning time or location. Although digital learning depends on the independent initiative of the learner, it also offers the possibility for more learner-centered learning. Using digital learning methods is also seen as advantageous for businesses since as Harun (2001) points out it is quite cost-efficient for clients since it eliminates travel costs. Additionally, the delivery of the training is time-saving as customers have the chance to go back to the materials to refresh what they have been learned earlier. The information is also always up-to-date since electronic material is much easier to update than traditional teaching materials (Harun, 2001). The global pandemic promoted this shift towards digital learning even more since at the time, it was impossible to gather on-location for learning situations. The study focuses especially on training sessions related to work environments since it has been far less studied than for example digital learning sessions in school context. As Lim, Lee and Nam (2007) state, many businesses are replacing traditional vocational training with e-learning to better manage their workforce, which makes this an important subject to study, so that we can better understand the learning phenomenon during these digital learning sessions. The aim is to find out how customers have experienced digital learning and what are the characteristics that have made

it a success or possibly a failure. This research will expand our knowledge about the characteristics that enhance learning in digital environments and which characteristics to emphasize for different online learning types, especially when training the participants to use digital systems or programs. This information can be used for design purposes in all areas that deal with or offer digital learning tools and programs to make these tools and programs as effective as possible for the learners. Elshami, Taha, Abdalla, Abuzaid, Saravanan & Kawas (2022) for example state in their study that for the arrangers of the training session to provide effective support for online learning, they must understand the different factors related to the use of technology in online learning. The case study also enlightens how cost-efficient online learning is compared to traditional learning. The case company gains valuable feedback about the quality of their remote training sessions. The information gained in this research will also tell us, whether customers want to go back to on-location trainings or stay with remote training sessions after the pandemic. This is valuable information that can have economic effects since it would encourage a shift in resource planning, when the main focus would shift from improving on-location training sessions to improving remote training types.

The literature review provided different characteristics for each type of digital learning that affected the perceived quality of the learning action. There were also similarities, for example the explicit wish to be able to see the recordings for refreshing the memory about the subject later on individual time schedule. Also an important similarity was that both the remote trainings and webinars should not be longer than 90 minutes.

The research was conducted as a qualitative research to get a deeper understanding of the phenomenon. Semi-structured interview was chosen as the research method for the study, because it was the best way to get the interviewees own voices heard. The study aimed at 10 interviews but the relevant information saturation was achieved after conducting 9 interviews in the summer of 2021. The questions of the interviews are based on the literature review and the characteristics of the different digital learning variations of the case company and the basic interview structure form, which is presented in Appendix 1.

The research method includes conducting interviews with customers who have preferably been in attendance on both on-location training sessions and on remote training sessions. Hence, interviewees can compare their experience on both accounts. The interviews concentrates on all three of possible digital learning types conducted by the case company: remote training sessions, webinars and instructional videos. The questions for the interviews are based on the digital learning types and on previous literature about digital learning.

1.1 Research questions

There are two research questions that this study aims to answer. The first one is:

1. What are the benefits and disadvantages of the different digital learning types from the perspective of the customer?

This question aims to find out what are the characteristics that make the customers value the quality of each of the different digital learning types. This will help to understand different aspects for future design of digital learning tools and materials.

The second question is:

2. What is the future potential for these digital learning types after the pandemic is over?

This question aims at the willingness of the customers to go back to on-location training in opposite to having embraced the benefits of digital training, or even continuing with digital training after the pandemic. This will help not only the case company to plan their resources according to the wishes of their customers but also any other company with similar offerings of training.

2 DIGITAL LEARNING

Warschauer wrote already in 2007 that the many new technologies will largely impact learning and literacy, comparing it to the effects of the development of the printing press on literacy and learning in the second half of the last millennium. In this statement it can be seen how the digital technologies first impacted learning with offering different ways to read literature also in digital form. After this the different technologies have come a long way helping people to learn in digital environments in many different ways. As Servage (2005) states the terminology on digital learning or e-learning or online learning as to name a few, is very diverse and scattered. Zhang et al. (2006) present one of the simplest definitions for digital learning stating that it means “that some or all of the learning content is provided online”. For a deeper analysis for the research purposes of this paper a literature review on the subject was conducted. According to Linckels et al. (2009) one main argument for digital learning is the trainee’s increased motivation for learning when ICT is used and the main argument against it is that there are concerns with the dependency and availability of the technical hardware. Still already in 2009 10% of all training was conducted through online learning and even before the pandemic these numbers had been growing (Linckels et al., 2009).

For the literature review both Google Scholar and Jykdok were used to find adequate literacy on the subjects. For the search process words like *digital learning* and *e-learning* were used as search words. Also, their extensions with other related words like *workforce training* were used to find more information for example the statement “digital learning for workforce training” was used as a search word. Furthermore, the Covid-19 pandemic was also used as a search criterion for related literacy.

2.1 Digital learning

Digital learning or online learning has been defined in many ways and this is evident in the fact that there are multiple terms that are associated with it. In the work *The theory and practice of online learning* (2008) the author lists for example the following terms for online learning: e-learning, Internet learning, distributed learning, computer-assisted, web-based learning, and distance learning. The author states that the common nominator for these terms is that they imply that there is a distance between the presenter and the learner and therefore the learner uses some kind of technology to access the learning materials.

There is also made a difference between asynchronous online learning and synchronous online learning. Asynchronous online learning means that the learning materials are available at any time, enabling independent study for the learner. Synchronous online learning then again means that the presenter and learner are online at the same time, making it possible for them to interact in real time (Ally, 2008).

One way to describe online learning is to define it as providing learner with information through technology. Maatuk, Elberkawi, Aljawarneh, Rashaideh and Alharbi (2022) stated in their paper that the use of web-based technology in educational purposes has in recent years increased rapidly due to the drastic reduction of the costs for implementing these technologies.

Keane (2012) makes a broader definition for digital learning and divides it into four parts: digital teaching materials, digital tools, digital delivery, autonomous learning. With digital teaching materials it is meant that learners learn with content that has been uploaded online. Digital tools mean that learners use actual digital hardware to gain knowledge such as desktop computers and smart phones. Digital delivery means that the learning activity can be delivered digitally through the internet or even through satellite broadcasting. Lastly autonomous learning emphasizes the fact that the learners do the learning by themselves with the help of some kind of digital learning material.

Lin and Chen (2017) argue that there are a lot of positive outcomes from using digital learning. First of digital learning presents better positive effects on both learning motivation and learning outcome than traditional teaching does. Furthermore, a better learning motivation has significantly positive effects on both the learning effect and gain in learning outcome. On the other hand, they do state that key issues with digital learning are designing the digital learning activities and how to flexibly apply technology tools for the best learning outcome. As people grow all the more confident and convenient with using the internet and portable mobile devices, they also become more confident with digital learning. Although many of the digital learning content is based on the learner's self-activity, one aim of digital teaching is to evolve the trainees more in the learning activity. Digital learning makes it possible to learn in synchronization or asynchronization with other without the restrictions of time or location. This aims for a more learner-centered individual learning experience (Kaklamanou et al., 2012).

Furthermore, following aspects have been found beneficial in previous research (Baloian, Pino & Hoppe, (2000); Kumar et al. (2001); Piccoli et al. (2001)) when using online learning: as mentioned it provides time and location flexibility and fosters self-directed and self-paced learning by enabling learner-centered activities. Furthermore, it creates a collaborative learning environment by linking each learner with physically dispersed experts and peers, it allows unlimited access to electronic learning material and because of the learner's autonomy it allows knowledge to be updated and maintained in a more timely and efficient manner. Studies (Faridah, Sari, Wahyuningsih, Oganda & Rahardja, 2020; Gustiani, 2020; Huang, Kuo & Chen, 2020) in the recent years are also suggesting that applying digital learning also tends to increase learners' motivation towards learning.

These previous findings show that digital learning has become a way to help learners do more for their learning experience and learning outcomes autonomously. Although they are provided with the materials, tools and software's, from someone else, they themselves have the main control on the learning pace and often also on what they learn. Therefore, it is important that the design for these digital learning tools and materials is also very learner-centered, since for this kind of learning process to work, the learner needs to be motivated and active.

Quite on the same page is also Peters (2000) and Elshami et al. (2022), who write that from a pedagogical perspective one of the reasons to start adopting digital learning was to engage the learners on a more active role during learning situations. Furthermore, digital learning was from early on thought to also be a way to get learners to be more interactive with each other.

2.2 Three different digital learning types

For this study we will take a closer look at three different digital learning types: remote training, webinars, and instructional videos. From these remote training and webinars are usually synchronous online learning types and instructional videos are more of the asynchronous online learning type. Based on the literature review it can be argued that these three types have some similar characteristics but also some that are very distinctive for each type. The aim of the study is to find out what these characteristics are and how the customers have experienced them during their digital learning experience or if they have noticed these characteristics at all. This information can then be used to improve the design of each digital learning type, to for example emphasize the characteristics that are more beneficial for the learning experience.

2.2.1 Remote training

These remote training sessions are for a specific group of people and often have a limited number of participants. These make the sessions more open to questions

and make it possible to go more into detail during the session. Much of these sessions are conducted via communication platforms like Zoom, Microsoft Teams or Google Classroom. Lim, et al. (2007) write that these kind of remote training sessions make it possible to customize the individual training sessions to fit the needs of that specific group of the trainees. They also state that trainer-trainee interaction enhances the effectiveness of the learning situation even though it happens remotely via digital means. Adding to this, Zhang et al. (2006) state that since online lessons and discussions can also happen in real-time the trainees can also study collaboratively online. These are important aspects since for example Servage (2005) argues that when designing e-learning it should not be forgotten to consider the human aspect of the human-computer interaction during the learning process. If the focus is too much on the technology, the needs of the learners are often left in the shadows resulting in the failure of the learning experience. Actions, that increase the human aspect even in a technologically provided environment, will enhance the learning experience and therefore can be much more effective.

According to Mahmood (2021) interactivity should even be encouraged in this kind of remote training sessions. Letting the trainees ask questions is a good starting point and it should also be encouraged that the trainees can discuss these questions together. Another effective way to enhance online learning is to share resources and materials for the lesson beforehand so that the trainees can have a look at the topic of the lecture and come prepared. This helps them to come up with questions in advance and it might help to lower the threshold to start discussions with the other participants.

Mahmood (2021) also continues that allocating teaching assistants is beneficial for remote training sessions. Having more than one person holding the online class or lecture helps to make sure that things are running smoothly. These assistants can for example help with questions which makes this characteristic especially suited for remote training classes which involve a lot more questions. Then again, having assisting hands can also help webinars to run more smoothly. This kind of help also includes for example letting late-coming participants into the session when the presenter has already started their lecture, so that they do not have to bother with these kind of things and can focus on the learning experience of the participants.

2.2.2 Webinars

Webinars are also mostly held with communication platforms. Webinars are often more open to participants and are more lecture-like, where a certain topic is presented to the audience. In this type of learning the questions are more often left to the end of the presentation, but as mentioned in the remote training part, if there is a possibility to have teaching assistants in the webinars then it is possible to present questions also during the sessions, with the assistants answering them as the presenter keeps the presentation going.

Gegenfurtner et al. (2020) define that a webinar can be described as a web-based seminar that connects live trainers or teachers with learners without

geographical restrictions. Because of this possibility to connect synchronously anywhere in the world with internet connection, webinars have gained growing attention in the last few years and both trainees and trainers have reported satisfaction with webinars (Gegenfurtner et al., 2020). The webinars have also gathered attention because of their quite open access nature. Since they can be open to multiple participants the attendance can be even quite massive. For example, Malmi and Kauppinen (2017) write in their article that in the early 2010's massive open online courses started to gather attention and that for a single course with a starexpert as the presenter there could be even 100 000 participants.

According to Gegenfurtner et al. (2020), Wang and Hsu (2008) and Elshami et al. (2022) learners preferred webinars over normal seminars because of the possibility to follow-up through the webinar recordings later at home or at the workplace. A specific problem that Elshami et al. (2022) raised with the recordings was that they also often reduced attendance at least in an educational environment. Although many wished for more trainee-trainer interaction, they also preferred that there was less time spent going through different things collaboratively, which was a more effective way to use their own time than to spend it going through each individuals own problems or tasks. The participants also appreciated that the webinars offered a chance to deepen the content that they were going through at the moment. Then again, some participants also felt that the webinars could be thought of as virtual consultation hours, and they felt that they were more comfortable to ask questions in this way. Regarding this, Wang and Hsu (2008) even suggested that there could be separate webinars for asking questions and to work as such consultation hours. One participant in their research even said that he felt more confident asking questions since participants were actually in the comfort of their own home. Also, the participants preferred the webinars to take no longer than 90 minutes and rather on weekdays after work than on weekends (Gegenfurtner et al., 2020, Wang & Hsu, 2008).

Although the participants felt that one advantage with webinars was that there was less time spent discussing individual problems or questions individually, Wang and Hsu (2008) still propose some interactive methods to get the learners more involved in the lecture that does not take actually enormous amounts of time. These are for example polls and discussion boards that today are often already a part of several webinar infrastructures. Furthermore, they suggest that the content of a webinar should not be overly complicated partly because of the lack of time to go through individual problems or areas of the subject that might be hard to understand for some of the participants (Wang & Hsu, 2008).

Even though many participants of webinars usually would wish to have a bit more interaction with the presenter, the learning process itself seems to be quite effective. For example, in the study of Ebner and Gegenfurtner (2019) the results showed that although the participants were a bit more satisfied with face-to-face teaching than with webinar teaching, the webinars were a bit more effective in promoting the knowledge of the participants on the topic handled. Yet the

differences were quite marginal meaning that both satisfaction and effectiveness were in the end quite the same in both ways.

2.2.3 Instructional videos

Instructional videos are learning materials with which the learner can access videos with instructions about subjects, that they need to learn about more. The learners can access these videos whenever they need them. Harun (2001) states that people learn best when they can learn what they need exactly when they need it, since then they can immediately put their new-found knowledge into practical use. Zhang et al. (2006) write that since instructional material can be offered online, an important point with for example instructional videos is random access, which means that the users can select the video segment of their choosing with minimal search time. This is also emphasized in the study of Chen (2012) where they state that the possibility to access the instructional videos quickly is also something that enhances the learners engagement in the learning process.

Mayer, Fiorella and Stull (2020) list five principles to enhance the effectiveness of instructional videos. These are dynamic drawing principle, gaze guidance principle, generative activity principle, perspective principle and subtitle principle. Out of these dynamic drawing, gaze guidance and perspective principle all make it easier for the learner to follow the process. Dynamic drawing means that the lecturer draws or makes graphics as they explain them rather than pointing at already complete graphics. When thinking about instructional videos for teaching learners about processes of their workplace it might be more beneficial to show actual processes rather than graphics. Additionally, it is better to show the actual process not only the end result. Gaze guidance refers to the means of the lecturer to guide the viewer's gaze, for example with their mouse. The perspective principle means that people learn better when the video is filmed from a first-person perspective. Generativity activity principle then again means that people learn better when they are encouraged to do activities that are aiming to improve learning. These could for example be that the lecturer encourages the learners to write some points down or for example mimic the process that they are currently showing on their screen. Lastly subtitle principle means that if people are studying from a video that is not in their native language, subtitles will help them enhance the learning experience. This study focuses on instructional videos in the native language of the learners, so we will not give this principle any more attention. On the other hand, they also present the principle of seductive detail that lessens the effectiveness of instructional videos. This means that if the video contains many exciting details that are not completely essential to the core message of the lecture they can actually be distracting. These could include for example fun video clips or a joking cartoon character (Mayer, Fiorella & Stull, 2020). What can be taken from the above is, that the characteristics of the instructional videos should be such that they help the learner to visualize the important points of the lecture and if the lecture is teaching them about practical processes,

the learner should be able to mimic the process after the instructional video. The ability to mimic comes from the fact that the views shown are from the first-person perspective, which makes the views then later familiar to the user. The lecturer then presents the process while explaining it and helps the learner to focus on the important parts with gaze guidance.

This argumentation is also already supported by Bramley in 1991, who studied that the learning experience is more effective when the trainees are able to make connections between the contents of the training to their real work. The more common factors there are between the learning content and the contents that the trainees see daily in their work, the more comprehensive the training situation is for them. Instructional videos offer especially big benefits concerning the ability of trainees to see realistic scenes and view actual objects, and the narration in the video supports the learners understanding of the subject (Kumar et al. (2001); Piccoli et al. (2001)). That is why it is important to show real views and for example during an implementation process of a software, real screenshots of the program during the training sessions, to help the learners to make real connections with their work life and the things they are learning.

One important aspect with instructional videos is that they are perceived as a way to get quick help. This means that for the user to get the benefit that they want from the videos, the videos should not be too long. For example, Malmi and Kauppinen (2017) write in their article that when 6.9 million instructional videos were studied the median time those videos were watched was 6 minutes. This means that the most effective videos should not be that longer and they should be very focused on the topic they are handling.

Based on these findings a table was constructed to show the different characteristics for each type and also to show the similarities for all types of digital learning.

One of the main things is that the online learning types are all unrestricted to geographical aspects. This makes it easy for the participants to attend the lessons and it is cost-efficient since the participants do not have to use their workplace resources for traveling to the lesson location. And as Piazza, Leaf and Lanier (2021) show in their study it is not always the problem that the participants cannot attend the session in person, but it can be that it is even hard to find a qualified presenter geographically nearby. Meaning that for a more quality lesson it can be beneficial to have it done remotely to get the best presenter possible.

One thing that is common for all these types is voice and pitch management. Mahmood (2021) states that an important aspect about the teacher's delivery is to maintain the right pace and many prefer rather a slow and gently voice. Voice management is especially important in online learning since many times the trainees can't see the teacher and therefore the teachers voice is the only tool with which they can emphasize certain things on the topic in question.

Another thing in common for all computer-based training types is that the trainee's self-efficacy is an important aspect in the training's effectiveness. If the trainee feels comfortable around computers, they are more likely to get the most

out of the e-training situation (Chou & Wang, 2000, Compeau & Higgins, 1995). However, the Covid19-pandemic has forced a significant amount of the population to get comfortable with computers, since close contacts are being avoided and many even remotely social activities are happening online, making this less of an issue. Furthermore, recent studies have shown that studying with the help of the mentioned communication platforms have raised the student's self-esteem and made them more willing to take responsibility of their own learning. Some have even mentioned that using these online learning methods have made them more eager to research more on the subjects independently online (Alameri et al. (2020), Wea & Kuki (2021).

For the remote training sessions and webinars, it seemed that the most effective duration for these online sessions would be 90 minutes. If they take longer, there have to be enough breaks. For example, in the study of Wea and Kuki (2021) the interviewees told the researchers that sitting behind the computer made them sleepy and bored, which can lead to lose of focus. To avoid such situations, breaks can for example be very effective.

The analysis part of the study will be based on this table, as we gather information about how the users of such online learning types have felt about these characteristics and their effect on the learning experience.

Type of digital training	Characteristics for the type
Remote training	<ul style="list-style-type: none"> - A restricted amount of people (for example need to register) -Chance to do exercises and to work collaboratively -Easier to deal with questions -Possible to be customized
Webinars	<ul style="list-style-type: none"> -Mostly open access for partakers -Wish for more trainee-trainer interaction but in a time-saving manor -On the other hand, people are more comfortable with questions, so possibility for a question-webinar could be effective -Chance to deepen content, but not suited for teaching complex entities. -No excessive time spent for going through individual tasks collaboratively
Instructional videos	<ul style="list-style-type: none"> -On their own time and whenever they need it -Quality comes from: realistic scenes and proper instructional narration -Ability to mimic the process on the video (this is supported by gaze guidance, showing the actual process and using the first-person perspective) -Distractive details lessen the effectiveness
Similarities	<ul style="list-style-type: none"> -No geographical restrictions -Duration should not exceed 90 minutes -Follow-up opportunity through recordings is preferred -Voice management

Table 1. Typical characteristics of each training type based on the literature review.

3 THE CASE COMPANY AND ITS TRAINING OPTIONS

The case company is a small software company in Finland, which delivers web-based enterprise resource planning systems for congregations. These ERP-systems help the work force of the congregations to arrange their day, to communicate with customers and other workers and much more. Since the system is quite complex the company trains their customers how to use it, first with an implementation training session and then with repetition sessions if the congregation wants or needs them. This is seen necessary as the customer base consists of congregation workers of quite old age, and many of them are still just starting to get used to digital devices and programs as part of their everyday work.

Before the pandemic, the company arranged some remote training sessions but most of the sessions were arranged on-location. The company also arranged seminars where workers from different congregations gathered to hear about new developments and to discuss different topics around the ERP-system. Just before the pandemic they also launched the so-called Taito-service for an additional fee, which lets the users watch quick instructional videos about certain actions and parts of the system. The service also includes remote training sessions about various themes and workers from different congregations can take part whenever they have the time for it.

Since the pandemic hit and in all of Finland it was recommended to work from home, the possibilities to arrange on-location training sessions were impossible. This meant that the company had to arrange their training sessions remotely via Microsoft Teams. As it became evident that the situation would stay quite similar for a longer time the company also changed their seminars to webinars. The Taito-service grew on popularity. Generally, the company presented their customers with the following three training option types: remote training sessions, webinars and the short instructional videos in the Taito-service.

4 METHOD

4.1 Qualitative research and interview

The research has been conducted as a qualitative research. This research method was chosen since according to Eskola and Suoranta (1998) qualitative research is a mean with which it is possible to describe a phenomenon or achieve better understanding of a special action. Quantitative research methods would be more suitable for achieving statistical generalizations. It is also typical for qualitative research that the research plan adapts to the research process if necessary. This can be seen also in the fact that in qualitative research the interpretation stretches through the whole research process. It is evident not only in the analysis and discussion phase but also already during the data collection phase and in the reporting phase (Eskola & Suoranta, 1998). Since the aim of this work is to understand the experiences of the target company's customers of online training during the pandemic, it was determined that a qualitative research would support this aim better than a quantitative research. Out of the possible qualitative research methods qualitative interviews were chosen as the method to conduct the research. According to Myers and Newman (2007, p 3) and Hirsjärvi and Hurme (2008, s. 34) qualitative interviews are the most commonly used methods to gather data in qualitative research.

Myers and Newman (2007) state that qualitative interview is one of the most important ways to research IS topics. It offers a way to dig deeper into the topic and to examine aspects of the topic that might not normally be visible at first. It is also the most common tool for qualitative research. The most used kinds of qualitative interviews are unstructured or semi-structured interviews (Myers & Newman, 2007).

4.2 Semi-structured interview

Semi-structured interviews were also chosen as the method for the data collection process in this work. According to Sarajärvi and Tuomi (2017, s. 65) semi-structured interviews aim to research different phenomenon's by emphasizing interpretations, meanings and the origin of meanings in interactions. In these semi-structured interviews, there are incomplete scripts that the interview follows and there is a need for improvisation to complete the interview (Myers & Newman, 2007). The conversation in these interviews revolves around previously discussed themes and based on the interviewee's answers, the interviewer asks follow-up questions to get a deeper understanding of the phenomenon in question (Sarajärvi & Tuomi, 2017, s.65). Myers and Newman (2007) list nine possible problems with unstructured interviews. These are artificiality of the interview, lack of trust, lack of time, level of entry, elite bias, Hawthorne effects, constructing knowledge, ambiguity of language and that interviews can go wrong. Semi-structured interviews were chosen for this research because it is believed that with this method it is possible to really hear the voices and opinions of the interviewees in the collected data.

For this research it is estimated that 10 interviews will be enough, and this is also the target number of interviews that are planned to be conducted. If the interviews are saturated earlier, the number of interviews can be reduced. The saturation of interviews means that the interviews at the time are not adding any new information to the research. The interviews will be conducted in Finnish although the study itself will be written in English. This therefore that the interviewees would hopefully be more vocal about their opinions while answering the questions in their own mother language.

For the research purpose of this work, different frameworks and research models were considered but since none were quite right for this purpose as their context was more in higher education, the research is firmly based on the findings of the literature review about digital learning and the different digital training variation types of the case company. For example, Blayone et al. (2017) use in their research the models of Fully Online Learning Community (FOLC) (vanOostveen et al. 2016) and Community of Inquiry (Garrison, 2011) are not suited for this purpose, although handling digital learning but with the focus on higher education, where they also deal with questions like course completion and grading which are not focus points for this research.

The questions for the interviews are based on the three types of digital learning variations presented by the case company and on the literature review. The basic structure of the interviews is presented in Appendix 1.

4.3 Reliability and validity

To present that the work is credible, both qualitative and quantitative researchers need to test their methods and demonstrate how reliable and valid their work is. With qualitative research the main point is to show that the researcher themselves has done credible work (Golafshani, N. (2003)). In other words, in qualitative research for reliability and validity, the competences of the researcher have to be analyzed. This also becomes evident by the fact that in qualitative research validity and reliability are treated as one and sometimes even changed to a term like credibility, truthfulness and transferability.

Eskola and Suoranta (1998) also state that since qualitative research cannot be as thoroughly tested and measured for reliability and validity as quantitative research, the analysis for the research process has to be based on trustworthiness. They also state that the key point in analyzing reliability and validity in qualitative research is that the researcher admits to their own subjectiveness towards the research and analyzes their own work during the research process.

When thinking about reliability and validity in this particular work it has to be stated that the researcher is very inexperienced not only with the research work but especially as an interviewer which can affect the data collection process. Since the data collection process constitutes from interviews, it is important to assess the reliability and validity of the interviews. One important point to consider is that the interviews are in a very artificial situation as they usually are situations where strangers talk to each other, and this might affect some of the interviewee's answers. Since the questions center around the interviewee's own opinions about the different training sessions, they might not be as direct with their answers if they do not completely trust the interviewer. The interviewee also usually has to create an answer under time pressure, which can lead to situations where they might not be as clear as they want, or they forget something that they would have wanted to voice.

5 RESULTS

The interviewees were asked about remote training sessions, webinars and instructional videos and how they would compare them with each other. The interviews were conducted in Finnish, meaning that all the citations of the interviews are translated by the researcher into English. The results were analyzed using the thematic analysis method, which is a very used method to analyze qualitative research results since it is very accessible and flexible (Braun & Clarke, 2012). The analyzing process started with familiarizing with the data by going through the audio records of the interviews and making transcripts out of them. After that the data was coded by marking certain parts of the text with different labels. After this it was time to go through the coded data and search for similarities and overlaps and identify themes from these findings. These themes were then named and can all be found as characteristics in the following tables (Tables 2-5) and are then presented in more detail.

5.1 Remote training sessions

Remote training characteristics	What the interviewees said about the characteristic
Knowing the topic before hand	<ul style="list-style-type: none"> - Easier to follow when topic is known - Would like to see a plan of the lecture beforehand - Does not help if the topic of the lecture is too wide - Easier to choose the lectures that interest the participant
Instructors' delivery	<ul style="list-style-type: none"> - With a fast pace, harder to mimic the shown actions - With slow internet connections, easier to fall behind when the pace is fast
Smaller amount of participants	<ul style="list-style-type: none"> - Possibility to control the conversation to stay on topic and monitor the content of the conversation - Participants more willing to engage in the conversation - The interviewees wish that the instructors would encourage conversation
Asking questions and interaction	<ul style="list-style-type: none"> - This divided the interviewees: Four agreed it was easier to ask questions in a remote training session and three stated it was harder. - The willingness to ask questions seems to depend also on the total amount of participants of the session. - There should be some time for questions in the end of the session in the same way as after a class in traditional training sessions.
Possibility of customization	<ul style="list-style-type: none"> - Can be constructed according to the needs of the participants - Can be modified to different skill levels
Disadvantages compared to contact learning sessions	<ul style="list-style-type: none"> - You cannot help the other participants around you as easily.

Table 2. Results on remote training sessions

5.1.1 Knowing the topic beforehand

One typical character for remote training is that the participants know the topic or at least have some idea what the lecture is going to be about. As mentioned in the literature the participants often learn better when they are a bit familiar with the topic and the remote trainings are very suitable for deepening knowledge. As Mahmood (2021) stated in the literature review part this enables the participants to come prepared and possibly already with questions for which they come looking for answers. If the participant is not familiar with the basics regarding the topic of the lecture, they can feel like the lesson would start a bit in the middle of the topic as one of the interviewed persons mentioned.

“It felt like the lecture started in somewhere in the middle, since the so-called behind the scenes work is not that familiar to me, it felt like I could not understand how everything was connected.” -Interviewee (number 6)

Many interviewees themselves also mentioned knowing the topic as a good characteristic for learning through remote training sessions. A couple of interviewees mentioned they would like to see a rough plan of the contents of the lecture beforehand to prepare even better. Then again, many of the interviewees also mentioned that knowing the topic does not help if the lecture itself handles a topic that is just too wide to be handled in a single session. Very wide and complicated topics should be therefore split into smaller sessions. Furthermore, a positive side of knowing the topic and the specific contents of the lecture, is also that the participants can better choose the lectures that are mostly really relevant for them. One interviewee mentioned digital learning as a way to save efficient worktime which is one of the main reasons for preferring online learning to traditional training sessions.

“I can choose the one that handles the topic that is hard for me, so then I just find it in the course catalog and choose that one” -Interviewee (number 4)

5.1.2 Instructors' delivery

One characterization that the interviewees feel, that hinders the learning experience is the pace of the lecturer who would speak and move forward with their presentations too quickly. This was also mentioned in the literature as part of teachers' delivery. The interviewees mentioned that they often want to check the shown actions in their own programs and try to mimic the steps that the instructor is showing. If the instructor moves very fast, they are likely to miss something.

One of the interviewees gave an example, that there can be times where the internet connections are slower at the receiving end of the lecture:

" -- Since there are different internet connections for the participants, the presentation can reach others slower. Also, the video can cut off at times, making it harder to understand where the presentation is going --" -Interviewee (number 4)

If the presenter moves forward with the presentation very quickly the participants can miss quite a lot. The more the participants miss of the presentation the harder it is for them to understand and to take in the lecture.

5.1.3 Smaller amount of participants

The interviewees also mentioned that the remote training sessions are good since there is a smaller amount of participants, which makes it easier to have conversations during the learning sessions. This was also mentioned in the literature by Lim, et al. (2007) making it possible to customize the lectures to the interest of the participants. A skilled lecturer can adjust the lecture for the participants even midway through the lecture. This is easier with a smaller amount of participants since it is easier to get a common consensus on what to focus on during the lecture. Although this can lead the lecture a bit away from the topic, with a smaller amount of participants it is usually easier to control the conversation and there are often many advantages on having the participants actively engage in the lecture. This is important especially since as mentioned before the aim of the remote training sessions is often to deepen the knowledge about certain topics. Since the topics are often complicated entireties, it is important for the participants to engage in conversation so any possible confusions can be avoided. Conversations between participants themselves and with the instructor can also raise different aspects on the topic which often enhance the learning experience. Regarding the conversations during the remote training sessions, a couple of interviewees noted that it is often not typical in the Finnish culture to start conversations on their own, and therefore they wished that the instructors would take an active role to engage conversation, not only with them, but also with the other participants. Some interviewees also mentioned that sometimes the things that are mentioned in the conversations can confuse some of the participants and therefore it is important that the instructors monitor the conversation. They should for example debunk false facts and if someone brings up rare cases, the instructors should explain them and make sure everyone understands what is being talked about.

5.1.4 Asking questions and interaction

One characteristic that clearly divided the interviewees was about asking questions. Four interviewees said that it was easier to ask questions during a remote

training session and three said it was harder when compared to traditional classroom-type of lessons. One interviewee had views both in favor of and against asking questions in a remote training session. She thought that in her experience some were very open and brave to ask questions but then again, some participants seemed to think that they should not ask questions and slow the presentation down with those questions. This kind of thinking could be explained with the fact that one of the main reasons to prefer remote training sessions seems to be that they are thought of being efficient and timesaving, so any participant-related delays like asking many questions seems to feel like taking away valuable time from the other participants. One interviewee did not take a stand regarding if it is easier to ask questions remotely or on-location but mentioned that in remote sessions it must be stressed that there should be enough time to ask questions since participants cannot really go up to the lecturer after the lecture and ask their questions in the same way that they can when the lecture is held face-to-face.

"I would wish that they would announce the lecture time as one hour, but then at least the lecturer would have extra time, like half an hour, if there are questions. -- It feels rude if there is not any more time and during the presentation there might come questions. -- if the participants are from different user levels, there might be more questions, which might not be considered in the original time-estimate." -Interviewee (number 9)

This interviewee also mentioned that the willingness to answer questions seems to be connected not only to how many participants there are in the particular lecture but also to how familiar the participants are with each other.

"You notice, that when it is your own little unit that are colleagues with each other, the more openly people ask questions, than when there is a lot of people from different organizations. Then it seems that people do not as bravely ask questions." -Interviewee (number 9)

Then again, one of the interviewees stated that no matter what way the lecture is being held, it is easier to ask specific questions especially during remote training sessions since their topics are often known to the participants as mentioned earlier.

"When you have had some information or experience about the topic beforehand, then you have been able to ask more specific questions and especially questions about things that are still unclear to you. -- I may now be speaking a bit on behalf of others, but the ones, that do not use the program as much, for them it can be that the contents of the program are so multi-

leveled, that it can be hard to catch on right away." - Interviewee (number 7)

To sum up the characterization of asking questions during remote training sessions, the willingness to ask questions and to get the benefits from asking said questions seems to depend on a few factors. Mostly, it depends on the bravery of the participant, how willing they are to ask questions all together and then how the consistence of the other participants affects that willingness. It can be affected by the size of the group or its familiarity. Based on the statements of the interviewees it completely depends on the character of the person asking the question, for example some prefer to ask questions in a bigger group of people and some in a smaller. Another thing that affects the willingness to ask questions is the amount of time there is for questions, is there a special slot for questions, or are the participants encouraged to ask questions during the presentation. These factors can be taken into account when designing online trainings, to encourage questions and by that improving learning.

5.1.5 Possibility of customization

Five of the interviewees also specifically mentioned as an advantage of remote training sessions, that they can be constructed specifically to the needs of the participants. This makes it possible to customize the sessions for specific target groups. This means that lectures can be modified for example to suit more advanced learners or more beginners. The sessions can also be adjusted more during the session for example by taking time to explain something that has come up during the session. As Lim, et al. (2007) mentioned in the literature, this is possible firstly, because there are a limited number of participants and secondly, since the remote training sessions happen in real-time, which both help to enhance trainer-trainee interaction. This makes it possible for the presenter to react to the needs of the participants as the lecture moves on. For example, interviewee number 4 addressed this factor on how more detailed they could handle the topics that they felt difficult to grasp:

"She (the presenter) advised us and answered just our questions. -- I liked these training sessions that were just for our organization, as we could go through our organization's topics. Those things that are important to us and trouble us, what could we do different. -- You do not really have the nerve to ask these kind of things in an open webinar and to say out loud, that even though we have been through this three times already, I still do not get this particular topic." - Interviewee (number 4)

About tailoring the training sessions to fit the user levels of the participants one of the interviewees stated this as why it helps the efficiency of the session:

"There can be some challenges with the time-use, when there are participants from different user levels, meaning some use the program more, some less and then it can be that when you are an advanced user that you do not get the gain out of the session as you intended." - Interviewee (number 7)

Meaning that designing the training sessions to match the different user levels make the sessions more efficient for learning as the presenter can focus on questions and topics typical to be useful for that specific user group. This also helps to keep the training session interesting for the participants, which is also one thing that helps to keep the participants focused throughout the training session.

Although, as mentioned many of the interviewees stated that it is good to have different training sessions for different user levels from beginners to more advanced users, one of the interviewees still noted that it can also be useful for more seasoned users to attend the quite basic learning sessions:

" It is good that there is a variety (of training sessions), and even that the same things are repeated, because of course there are new people coming in to work, who need to be trained, but also if you have worked with the program for quite some time and taken the training session (before), the repetition is good for them, cause there is often small nuances that you can get out of it like 'Oh I did not remember that I can do this that way also'" - Interviewee (number 5)

5.1.6 Disadvantages compared to contact learning sessions

Two of the interviewed persons mentioned that a disadvantage with remote training sessions, when compared to traditional contact lectures, is that when you are present in real life, you can during the lecture help the other participants around you, like for example the person sitting next to you. It is easier this way to make sure that others understand the topics that are presented, especially if one is in a leadership position. Then again this also means that both the person who is being helped and the one who is helping are likely getting distracted and missing some of the presentation. There is also the possibility that they are distracting others if they are whispering together.

"When thinking about comparing traditional lectures and remote training sessions, when you are in contact, the interaction is easier -- for example, there might be conversations with your neighbor, did you understand what was just said?" - Interviewee (number 9)

One person mentioned that there is a possibility that when the participants are asking questions, they can lead the conversation away from the topic. This of course affects the lecture as well in person as online. As mentioned, this might not actually be a problem if there is a possibility to change the course of the session to answer the question. The presenter can also choose to deal with the question and handle it with the participant who asked it after the session, to avoid confusion and delays.

Regarding organizing remote training sessions two of the interviewed people mentioned that it would be good to get the means of logging into the lecture session, like invitations or links, well in advance. That would enable them to prepare their devices and connections to fit the needs of the training session.

5.2 Webinars

Webinars	What the interviewees said about the characteristic
For deepening the content	<ul style="list-style-type: none"> - Good when the participant has a concept of the topic - Not optimal for a completely new topic, since the pace is fast - Not as much time for questions, meaning the presentation flows on effectively - More participants can also mean more ways how to look at the topic
Possibility for multisided and multitopic information	<ul style="list-style-type: none"> - Easier to grasp from a presentation than from a written newsletter - Can also be used as a quick recap on multiple things - Not as easy to keep up as remote training sessions
Less opportunities to ask questions and for conversations	<ul style="list-style-type: none"> - Asking questions can feel disruptive - You need to ask permission to ask questions - Chat box is not as fast as asking directly

Table 3. Results on webinars

5.2.1 For deepening the content

The interviewees mentioned that webinars are very good when the participants already have some sort of concept of the topic. They felt like the webinars were helpful for deepening the content of the topic, similar to what participants in previous literature articles had also said.

Otherwise, the interviewees in this research felt like the webinars were not really the best place to learn about a completely new topic since the pace was faster than for example in a remote training session. As the pace was faster it makes it harder to follow the presentation and if the listener loses focus, they can miss a lot of key information in a short period of time. Also, since the presenter

has a tight schedule to hold, they do not have that much time to answer questions thoroughly.

"-- For someone who has attended less (webinars), it could be that there are more questions or that they cannot keep up with the presentation. But for me the program is so familiar and the activities in it, that I have been able to keep up with the pace fine." - Interviewee (number 9)

"For our employees who do not know so much about these things (the program), they were in total panic, like 'oh no, there is more new things coming, no, no'" - Interviewee (number 1)

One interviewee also mentioned that the webinars are therefore good for deepening knowledge about the content since there are usually more participants from different organizations and through that there often rise new aspects on the topic, even if the participant is very familiar with it already.

"When there are people from multiple organizations present, you can see and hear how these other organizations use some programs and that gives much more perspective (into the own usage)." - Interviewee (number 8)

5.2.2 Possibility for multisided and multitopic information

One of the interviewed persons mentioned that they like when the webinars are used as informative sessions. They felt like having a presentation of the topics is more effective than reading a newsletter or similar. It is easier to get an idea of the concepts when they are presented to one rather than having to read about them.

"Somehow, when it is in writing... That the information is in you mailbox, what new features there are and other stuff, you often do not get as clear of a picture than when it is shown to you for real in the program" - Interviewee (number 6)

Following a presentation keeps you more focused. A newsletter in the email is easy to skip. For the presentation the recipient needs to take some time within their schedule, which already makes them to commit to the presentation which is not the case with the newsletter.

Three of the interviewees stated that they like the webinars since they can handle a topic from multiple angles or on the other hand, go through multiple

topics in an efficient pace. They also mentioned that they liked that the webinars could be useful for having a quick recap on multiple things.

"There was a lot of information compressed to small time-window, but it did move forward from topic to another quite smoothly" - Interviewee (number 2)

"In the webinar, there is always something familiar, which brings comfortness like 'yes this I can do and that I know' and the repetition is also good for me." - Interviewee (number 7)

One of the interviewed persons stated that compared to remote training sessions, webinars are not as easy to keep up with since there can be multiple topics during one presentation.

"There must have been some sort of minute count in which all of the topics had to be gone through, so that was hard for me to absorb all of that in one session." - Interviewee (number 4)

This is a real concern when designing webinars since some participants think it is beneficial to go through multiple topics in one session since it is thought to be efficient and timesaving when you have to schedule time for the webinar only once than to have multiple gatherings for different topics. Then again as the last comment showed us, some participants might find it hard to handle many topics. This means that when designing webinars that aim to tackle multiple topics or multiple sides of one topic, it should be thought through how much the participants can handle in one session and in what amount of time.

5.2.3 Less opportunities to ask questions and for conversation

A few of the interviewees felt that it was harder to ask questions during webinars than during remote training sessions. One of the reasons for this was that there are more people participating, which made asking questions feel disruptive and even disrespectful towards the other participants.

"I am braver to ask questions from the presenter on-location -- From behind the screen I am shyer, since I feel like then I have to ask for permission to speak and I feel like that I should not disturb here." - Interviewee (number 4)

When talking about asking questions the interviewees preferred on-location seminars since there is no need to ask permission to ask questions during the

presentation. You can also go up to the presenter after the presentation and then ask your questions. The participants also mentioned how important the chance to ask questions is, since they feel that that is the only way to make sure they understand the topic right the first time around.

About asking questions, many of the interviewees said that it is possible to ask questions during the presentation through a chat box function or something similar. This way it is not as distracting towards other participants to ask questions in the middle of the presentation, but the participants can ask them right away when they come up with them. The most important positive feature is, that the participants can ask questions throughout the presentation. This option is also good if the time for the session is very limited.

The attached challenge is, that to make it successful, the session would need an assistant for the presenter to answer possible questions online. As the literature showed (Mahmood, 2021) this is often the case with webinars but still not always. Another problem with this is that the answers come a bit late when they are written. The presentation may have already moved forward when the answer arrives.

"There was this thing in the background that you can write your questions, but the questions came a bit late, because it is slow to write and the pace is fast, so the presenter had already moved on to the next thing when the questions started to come." - Interviewee (number 2)

Still the interviewees stated that they did not mind this as long as they got their answer. They even stated that there is the benefit, that when the answers are written in the chat box, one can come back later in the presentation or sometimes even after the presentation and remind oneself what the answer to a certain question was. Through these questions they can also learn new things bothering other participants. Furthermore, three interviewees also mentioned regarding the questions during webinars that they wished that even though an assistant answers the questions in the chat box, the presenter should emphasize some of them by reading them out loud, so the participants who have not paid attention to the chat box also get the most important information out of them. They also mentioned that sometimes other participants answer questions in the comment section or through the chat box. In these cases, it was mentioned, that they would like the presenter to check these answers, whether they are first of all correct and whether they present alternative options, since different organizations use different practices and one general option might not fit all. For example, the same practices that are being used in a big organization might be quite impractical for a smaller organization.

"I would wish that the lecturers would really just read out loud what they are speaking about in the chat box, maybe not all of the questions but about some themes, if anyone has something to add to those themes or is something still unclear about it." - Interviewee (number 6)

"The presenter checks the chat box, puts it all together and checks that the messaging there is rightful." - Interviewee (number 8)

A couple of the interviewed people mentioned that they think that it is harder to have discussions with other participants in a webinar than in a remote training session. This was also based on the fact that there are more people attending, and that it would feel disrespectful towards others to start an own conversations when so many people are using their time to attend and listen to the presentation. This was also mentioned in the literature as both Gegenfurtner et al. (2020) and Wang and Hsu (2008) mentioned in the literature many participants of webinars appreciated also that the lecture moved forward more effectively than in remote training sessions since there was not as much time spent on individual questions.

"Rarely there is any real conversations, -- Mostly it is just the presenter answering questions." - Interviewee (number 5)

They also mentioned that it easier to have conversations with others when you are live on location and not online. Then you can whisper with your next-seat neighbor about the topics of the presentation without demanding the attention of all the other participators. However, one of the interviewees said that he feels that online sessions are especially better because you do not have to deal with distractions caused by others like two participants whispering, since that usually is something that others notice too.

5.3 Instructional videos

Instructional videos	What the interviewees said about the characteristic
Quick help	<ul style="list-style-type: none"> - They need to be short - Index should be such that they are easy to find
Tool for supervisors	<ul style="list-style-type: none"> - Great for guiding subordinates. Saves everyones time. - Helps subordinates to be more self-directed. - Need to be of good quality.

Table 4. Results on instructional videos

From the three digital learning types, the interviewees had used the instructional videos the least and therefore were not as opinionated about this specific type as about the others. There are still a few characteristics that differentiate this learning type from the previous ones.

5.3.1 Quick help

Most interviewees who talked about instructional videos told that the biggest advantage of them is, that they are easily available. Therefore, the videos are a way to get help very quickly. With the remote trainings and webinars, the attendee has to wait till the moment they are held to get answers to their questions, but the instructional videos are often ready to be watched at any time. The interviewees also noted the same thing as Malmi and Kauppinen in their 2017 article, which was referred in the literature, that the videos need to be kept very short for the user to really benefit from it.

"In the videos I can find the information and it is in a optimal schedule --- it cannot be long at all, or then people will just skip it." Interviewee (number 1)

One thing that came up was that wherever the videos are kept, the index should be such, that the right videos are easy to find.

"The needed information has to be found as quickly as possible amongst several videos" - Interviewee (number 2)

There are several ways to design the instructional video library to enhance this function. For example, the index could be organized based on themes or in alphabetical order to help the user navigate the video library. The index could also include a search function. However, it is important, that the user is able to find what they need when they need it, or the main advantage of instructional videos is lost.

5.3.2 Tool for supervisors

A third of the interviewed people said that they felt that the instructional videos are great tools for supervisors to help their subordinates. When their subordinates are struggling, they can direct them to the instructional videos to first try to find the answers themselves, possibly saving time and efficiency from other employees.

"I can for example tell one of my employees, who feels insecure, for not knowing how to do something (in the program), so I could then tell them to watch if the video could be of help and if they could get the advice they need from there." - Interviewee (number 9)

Once the subordinates have tried to get help from the instructional videos, they can also be more self-directed and next time go first straight to the videos and if that does not help then ask other employees or their supervisor for help. For this to work the videos need to be of such good quality that for example supervisors can rely on them.

The need for the instructional videos to be of good quality was also mentioned in the interviews. They especially wished that the view of the screen would be good, so that the information in the video would be easy to understand.

"Good enough of quality, so that the user can really understand what is shown in the pictures or on the screen." - Interviewee (number 2)

If the user sees that the video is of poor quality, they will not watch it further than a few seconds.

5.4 Similarities between all types

Similarities	What the interviewees said about the characteristic
No physical presence	<ul style="list-style-type: none"> - You do not have to physically move anywhere - This is cost-efficient - Makes it possible to attend on short notice - since there is no need to commute back from the lecture, participants are even willing to spend overtime - There is a own peace when attending from your own office or home
More efficiency	<p>problems</p> <ul style="list-style-type: none"> - The lecture moves forward more efficiently - There are less distractions from other participants online, but some stated they are more profound to own distractions when attending online. - Nowadays easier to attend since everyone
Optimal duration	60-90 minutes for remote training and webinars
Possibility for recordings	<ul style="list-style-type: none"> - Possibility to follow-up on the lecture. - They could learn the contents later on their own time and at their own pace. - Recordings help to fill in the blanks if there is a distraction in the middle of the session. - More easy to follow, when considering accessibility.
Realistic views and other presentation techni	<ul style="list-style-type: none"> - Realistic views help to remember after the session - The presenter should not jump around and should make sure the screen is zoomed in enough for the participants.

Table 5. Results on similarities

Although, there are a lot of distinctive differences in the characteristics between the different online learning types, there are also many similarities between them that differ them from traditional lectures. These characteristics should also be considered and used in the right way while designing online lectures to give the participants the best possibility to learn.

5.4.1 No physical presence

Almost all of the interviewees mentioned that the best thing about the online lessons is that you do not have to physically move anywhere.

"It is sometimes quite time-consuming to be physically somewhere for a lecture -- it takes time to get there, to a certain place and to take that time out of your schedule -- It saves energy in many ways." - Interviewee (number 7)

Many of them stated that this was not only convenient for them but also cost-efficient.

" -- if the lecture is very far away, I do not want to use my working time and also not my employee's money, so therefore I do prefer the online learning opportunities." - Interviewee (number 8)

As Interviewee number 8 said, if the participants would have to physically move to somewhere for the lesson it would take unnecessary time and resources not only from themselves but also from their employees. Similarly to interviewee number 7, one of them mentioned that it is not only time-consuming to move to the location where the lesson is being held but also to reserve time in your calendar for the whole lesson because it usually is quite hard to sneak out of the lesson room during the presentation. Contrary to this, if the lesson is being held online the participant can take part in it only for the specific part that they need to and then go back to their usual work assignments. One of the interviewed also stated that since they do not have to plan the commute to the lecture location and the possible overnight stay, they can participate even on short notice.

"It is so easy, because you can participate even for a short time, even if you just have an hour or half an hour, since it is not location based and you do not have to go anywhere." - Interviewee (number 5)

Furthermore, one of the interviewees mentioned that since they do not have to rush back to their office or somewhere alike, they are more willing to spend overtime on the lesson. They can for example stay online longer to ask questions or listen to the discussion after the presentation has ended.

Couple of the interviewees also stated that it is also very easy to follow online lectures from your own computer and often in your own peace. As mentioned before, there are no distractions from other participants. There are also no visual obstructions when watching from your own screen like sitting too far away or having something or someone in your way, which might be the case in an actual lecture room. Then again one of the interviewees mentioned that sometimes there is not enough personal equipment for all wanting to participate, which results in more than one person watching from one screen. This allows more people to participate but then again might result in visual obstructions or having problems hearing the lecture when there is only one speaker to use.

5.4.2 More efficiency

Many of the interviewees agreed with Gegenfurtner et al. (2020) and Wang and Hsu (2008) from the literature, that participants of digital learning methods often appreciate the possibility that not too much time was spent on individual problems. This was made evident as the interviewees stated that one very clear advantage for online training is that the lecture moves forward more effectively

than in traditional training sessions. During traditional training sessions the pace of the lecture is often set to accommodate the so to say slowest in the group, which according to the interviewees can feel quite frustrating for most others

“During on-location trainings, we always move forward to the pace of the slowest one in the group and it is being made sure that that person can do the same functions in the program as everybody else. During online training there is either a pre-recorded video or a lecture is being held about these functions and the responsibility to keep up with the lecture is being left for the participant.” - Interviewee (number 2)

One of the interviewees compared traditional trainings to online trainings with the following statement:

“You can get the help immediately when the presenter comes to stand next to you and explains it to you (during traditional trainings), but those trainings where you are physically there are very time-consuming.” - Interviewee (number 7)

Three of the interviewees stated that they feel that there are less distractions when they are learning online. As examples of distractions when attending learning sessions on location they mentioned people coming in late to the room and having problems with their equipment.

“With these online learning sessions that god awful nuisance is left out -- the more there are people in attendance (at traditional trainings) the more linearly the messing up increases.” - Interviewee (number 3)

Both situations mentioned by the interviewees are problematic since they can be distracting as there is unnecessary movements and noise caused by them. They are also this kind of situations that neither the presenter nor the single participant can do much to firstly prevent them and then secondly to block them from their consciousness. However, people coming in late can also be distracting online. For example, there can be a pop-up information every time someone enters the online learning session, but these are usually easier to prevent by the presenter through settings. Another possible distraction that has nothing to do with the participant or directly with the presenter, are the questions in the comment section. Again, there might be a pop-up information coming up, but it usually is possible to prevent these with the settings of the session. Also, one of the interviewed people addressed this by stating that it is less distracting to them to have the questions in the comments section when studying online, than to have people whispering to each other about the topics when studying on location.

“When you have your headphones on you can block everything else out and you will not be whispering with your next-seat neighbor. I think it is different if you write there (in the chat box), than whispering 'that means that' and 'oh you can do that there' and so on, since with the whispering you distract the others more than with writing into the chat box.” - Interviewee (number 8)

Then again, two of the interviewees mentioned that they are more profound to own distractions when studying online than on location.

"Well then there is that, that if there happens a personal distraction, then a lot of the training will just go by" - Interviewee (number 5)

This is especially if the sessions duration is long and there are not enough brakes. This can make the participants to take their own breaks for example go to the toilet, get something to eat or look at their phone for a while. But these distractions only affect the single participant and do not affect others.

A couple of the interviewed persons mentioned that many of the participants have been forced to learn how to use these kinds of online learning and communication environments due to the Covid-19 pandemic. They feel that this has made it a lot easier for participants to take part in online classes and there have been less technical problems. One of the interviewed people also mentioned that it is easier to gather participants from various organizations, when holding the learning sessions online, since there is no moving from one place to another. This makes it more cost-effective to arrange lessons and it also makes it possible to hold the same sessions a couple of times. This gives the participants the chance to attend the session when it suits their schedule the best. On the other hand, two of the interviewees also said that they feel that online lessons are easier to forget than live sessions. This is because since you do not need to move anywhere, there is no need to take time out of your schedule as early enough as for an on-location lesson. This has then resulted in forgetting to mark it in the calendar and therefore making the participant to forget or even to choose not to attend.

“There is a small chance that you might not attend since it is easy to just stay out of the lecture, if one thinks that they have something more important to do at that moment” - Interviewee (number 7)

5.4.3 Optimal duration of the online training types

The interviewees were also asked what about the optimal duration of such online training sessions. Almost everyone answered that the optimal duration would be something between 60 and 90 minutes. One of the interviewed people stated that they would be fine with everything under 2 hours. The interviewed people stated that it can be more demanding to follow the presentation online than on location since there is less interaction between the participants. This means that the session is all business and there are less "lighter" moments. This makes the sessions very intense and that can get tiresome, especially the later in the day the session is being held.

One of the interviewed people preferred the sessions to take 60-90 minutes but stated that they do not care that much as long as there is enough time for questions left at the end of the session. Another one was on the same page stating that they do not mind if the presenter does not use the whole time that had been booked for the session, but that they also would prefer that there would be plenty of time to ask questions after the presentation.

5.4.4 Possibility for recordings

Much like Gegenfurtner et al. (2020), Wang and Hsu (2008) and Elshami et al. (2022) mentioned in the literature, many of the interviewed people stated that they would like to be able to see recordings of the learning sessions as a possibility to follow-up on the lecture. They felt like this would be helpful for remembering what was told in the session and that they could mimic the actions from the lessons later on at their own time and at their own pace. One interviewee also mentioned that if there is a distraction on behalf of the participant during the lecture, the recordings help to fill in possible blanks of the presentation.

"(Talks first about how to keep up with the lecture) -- those recordings help. Very often you will not be able to listen (to the lecture) in peace, every once in a while, someone barges in with "a little thing", and then the little thing takes 10 minutes to solve and in that time the lecture has moved on a lot." - Interviewee (number 3)

Then again one of the participants mentioned that there is a downside with these recordings and that is that there is no live possibility to ask questions while watching the recording.

"-- you can keep up, and if it is a recording the participant can rewind the recording, and watch it again, but with the recordings there is the downside

that there is no live person from whom to ask questions in real time.” - Interviewee (number 2)

If something in the recordings raises questions the learner has to contact the presenter separately and then wait for the answer for a certain amount of time.

The same interviewee number 2 also raised some concerns about accessibility. They mentioned that this should be considered especially with the recordings from all of the online training methods, because many participants who need better accessibility, can have difficulties keeping up with regular online training sessions, especially if they are fast paced. In these cases, it would be very beneficial for them to go back to the recordings of the sessions and watch them in maybe a slower pace or in a few sections rather than in one piece depending on the situations. The presenter can also add subtitles to the recordings. There might also be a need to have the screen more widened out or zoomed in. And if the chat box is in use, it can distract the participant, if there is an e-reader in use, which reads the comments out loud for the participant. Also, with the instructional videos, it would be better for accessibility if it would be possible to watch them for example with subtitles or in a slower pace.

5.4.5 Realistic views and other presentation techniques

Regarding presentation techniques the interviewees had clear ideas which techniques work best for similar online trainings. A couple of the interviewees mentioned that they dislike following the presentation through PowerPoint slides and prefer the presenter to show screenshots or an actual view of the program. The importance of realistic views was also already noted in the literature by Kumar et al. (2001) and Piccoli et al. (2001). The interviewed people felt that seeing the actual view of the program helped them not only to understand what was happening but also later to remember what was spoken of certain views and the actions within them.

“They should always show the real program, the PowerPoints are so tiresome” - Interviewee (number 3)

“So if there is always a screenshot of a certain part (of the program) and if you yourself do not have the computer open or that specific part of the program or you simply cannot open it at the moment. Then afterwards when you have once seen the scene somewhere it is easier to later find it by yourself in the program.” - Interviewee (number 8)

Some of the interviewees also noted that they would wish that the presenter would keep the “jumping around” during the presentation to a minimum. They stated that it is easier to follow the presentation when they see each of the steps

that need to be taken, compared to a situation when the presenter has beforehand opened different views in different tabs in the browser and moves forward with the presentation “jumping” between these tabs.

“I cannot always keep up when the presenter just clicks away on the page, I wish they would just stop and show that now they will be clicking this.” - Interviewee (number 4)

Related to this, the interviewees also mentioned that it is important that the presenter checks that the views are zoomed in enough, so that the participants can see the presented views clearly. Often the shared window view in different communication software’s packs the view a bit down, so that the different functions of the software and for example the participant icons can be visible. Consequently, the view seems bigger to the presenter who sees their own window view. That is why it is important for the presenter to zoom in a bit for the participants.

Furthermore, regarding presentation techniques two of the interviewees mentioned that it is nice to see the faces of the lecturers. They prefer it over a faceless email exchange or reading a manual by themselves.

“That is also very good, that presenters show their face during the session, so you know there are actual people behind the screens, not just some faceless someone somewhere, like the feeling you get from email exchanges, so the video connection is good.” - Interviewee (number 6)

In general, there are a lot of presentation technique aspects to consider when designing online training sessions. They do not only affect directly the ability of the participants to learn the contents of the learning session, but also indirectly. When the online learning sessions are designed in a way that makes the participants feel comfortable with the lecture, they are more concentrated and more open to learn.

6 DISCUSSIONS

This case study aimed to answer the following research questions: What are the benefits and disadvantages of the different digital learning types from the perspective of the customer? What is the future potential for these digital learning types after the pandemic is over?

For the first research question three online learning types were studied: Remote training sessions, webinars and instructional videos. Remote training sessions seemed to be the most popular ones amongst the interviewees, mostly because of its possibility for interaction with the presenter during the lecture, which is made possible by the smaller number of participants. There is also the chance to customize the lecture to the needs of the participating group or make quick changes on the behalf of the presenter which all help to make the lecture answer to those specific questions that the participants want answered. In remote training the participants very often know the topic that the lecture is going to be about, and this also helps them to prepare and maybe even come to the lecture with questions, which once again makes the learning experience more efficient for them. As disadvantages of online learning the interviewees mentioned amongst others, that you cannot help other participants as you might when learning on location. It was also mentioned that the instructor's delivery affects the learning a lot, because if the instructor moves very quickly it can not only be hard to keep up with the lecture, but if there are technical difficulties the participant on the other side of the screen might miss a big part of the presentation.

Concerning webinars, one thing that came up in the interviews was that the interviewed people felt that it is an efficient learning method when the participants are already a bit familiar with the topic in question. Then the webinars offer a way to deepen the content and to explore it from multiple sides. It also makes it possible to go through multiple linked topics in a single session. Then again if the participant is completely new to the topic, the webinars might not be the best possible learning method online, since the pace can be quite fast and there usually is a lot less possibilities to ask questions or for interaction with the teacher or with other participants since the participating group is much larger than in remote training sessions.

About the instructional videos the biggest point was that it makes it possible to get help very quickly, since they are always available for the user or learner. Another thing that the interviewees mentioned was, that the instructional videos can work as a tool for supervisors to guide their employees to look for help with these videos. For these two characteristics to be beneficial for the learners the instructional videos need to be designed so that the information is packed in a compact time and the information still comes across. It was surprising how little the interviewees felt that they had to say about instructional videos although one would think that that is something most of us have experienced in some context. This might be because the interviewed people were mostly middle-aged or older, and it might be more of a millennial thing to be used to get help from the internet in a more self-oriented way.

The interviews also showed that besides the differentiating characteristics of the different online learning types there are also many similarities that the interviewees preferred when comparing online learning sessions to traditional learning sessions. Many of the characteristics had to do with efficiency or at least the feeling of it. Seven out of nine interviewees mentioned that they thought that online learning is at least in some way more cost-efficient and time-saving than traditional training lectures. The interviewees appreciated that they did not have to move anywhere physically when attending learning sessions online and they felt that there were less distractions in their own peace and quiet. Furthermore in the literature the study of Ebner and Gegenfurtner (2019) showed that there basically is no difference in the satisfaction and effectiveness of the knowledge promotion when comparing for example webinars with traditional face-to-face teaching, meaning that if the online learning types are more cost-efficient to arrange for both the participant and for the offering organization, it could be a very wise choice to arrange training online. The interviewees also appreciated the possibility for recordings to brush up their memory after the learning session. The interviewees also stated that they think that the optimal duration for these online learning sessions should be something around 90 minutes. Except for the instructional videos which were specified to take no more than a few minutes each, to work as quick help. One last thing that the interviewees talked about, was how much easier it is to remember things from the presentations when they can see actual views of the program and later move around in the same views.

Regarding the second research question the interviewed people were asked if they would like to continue taking these online lessons even after the pandemic's worst part was over. Out of the nine interviewed people, five said they would rather prefer to continue with online learning than go back to traditional learning when regarding work-related training. The remaining four said that they would like a hybrid model with both on location and online learning sessions. None of the interviewed people wanted to go back to only attending traditional lectures. This also emphasizes why the results of this study are important since there seems to be a continuous need for these online learning types.

The answers of the interviewed people highlighted many of the same aspects that came up in the literature review part of the study. When thinking about

possible weaknesses of the study this could be one, since the similarity between the answers and the literature review can cause speculations whether the interviews were influenced a bit too much by the literature review and whether it might have guided the questions too much. The study was also conducted based on a fairly small amount of people, who are all working in the same area of expertise. To get a more reliable outcome, more people from different fields and other demographic areas should be interviewed. The phenomenon of online learning in general has also been quite largely studied through interviews so to get a better picture of it, there might be a need to conduct future research on the topic through more of a quantitative research method. Another possible research direction could be measuring the effects of the different characteristics with learning outcomes. Now the research is based on the participants' experience, which does not necessarily add up with actual learning outcomes.

7 CONCLUSION

This case study was conducted to find out what characteristics in different online learning types affect the participants learning experience and in what way. The study was conducted as a case study to get the point of view of the participants and to get valuable information for the case organization. The study was restricted to online learning sessions aiming to teach workforce to use a digital system or program. The aim was to get information about what characteristics are helping to enhance the learning experience for the learner and what might hinder it. This helps to design the future online learning sessions as effective as possible.

The study was conducted as semi-structured interviews to thoroughly get the point of view of the attending participants of these online learning sessions. Nine people were interviewed for the study in the summer of 2021. The study focused on three different online learning types: remote training sessions, webinars and instructional videos. A literature review was conducted about these three learning types, which resulted in a list of different characteristics which affected the learning experience of the participants of these kind of online learning types. The questions that were asked of the participants of this study were based on these different characteristics from the literature review.

The results show that there are many characteristics that the interviewees appreciate in favor of online learning methods when comparing to on-location training. One main thing is that the interviewees felt like the different methods allow them to get the knowledge they need pretty much when they need it, where they need it and in the extend that they need it. Sometimes a fast instructional video is enough and on other times they need the opportunity to reflect on the topic together with the instructor in a customized remote training session. Many also found it helpful to attend the online learning sessions from the comfort of their own office or home. For the organizations offering these kinds of learning types they should take into consideration what is the aim of the session. The chosen type should consider the aim of the session, do the clients need a customized session just for them, do we want to deepen the knowledge for our clients of a

topic that is already widely known in the client base but now has for example something new to it or can be used in different ways, or do the clients just need a quick help.

All in all, there is a clear need for this kind of online learning types to be used when training workforce for digital systems. It is quite clear that we will increase the use of digital learning systems. Since the pandemic, many previously less tech-savvy have had to learn to deal with different technologies, so I do believe humans will be seeing each other through screens daily in the years to follow so for organizations to be ready for that would be very wise.

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APPENDIX 1 BASIC INTERVIEW STRUCTURE

Muista mainita nauhoittaminen, anonymisointi ja vapaaehtoisuus

Demografiset tiedot

Ikä

Ammattinimike

Kuinka kauan käyttänyt XX (kyseistä ohjelmaa)

Taustatietokysymykset

Mihin seuraaviin koulutuksiin olet osallistunut?

Seurakuntakohtaiset lähikoulutukset Kyllä/Ei

Seurakuntakohtaiset etäkoulutukset Kyllä/Ei

Seminaarit Kyllä/Ei

Webinaarit Kyllä/Ei

Oletko käyttänyt Taito-palvelua?

Oletko katsonut sieltä lyhyitä ohjevideoita ja/tai osallistunut koulutuksiin?

Haastattelukysymykset

Millaisia yleisiä kokemuksia etäkoulutuksista?

Onko ollut ongelmia?

Onko ollut käytännön ongelmia laitteiston/sisällön kanssa? (Teknisiä ongelmia, väärinymmärryksiä?)

Ovatko koulutusten sisällöt olleet helposti ymmärrettävissä? Miksi/Miksi ei? (Visualisoinnit/tahti?)

Jos vertaat etä- ja lähikoulutuksia, mitkä asiat ovat toimineet ja mitkä eivät?

Koetko webinaarin toimivaksi konseptiksi?

Miten koet vuorovaikutteisuuden webinaareissa, mitä vuorovaikutteisuus mielestäsi tarkoittaa? (Kysymysmahdollisuudet/verkostoituminen)

Miten koet Webinaarien ja etäkoulutusten kestot? Onko ollut sopivia, mitä pitäisit itse sopivana?

Kokemuksia Taito-palvelun pikkuvideoista

Toiveita/Ajatuksia koulutusten kehittämiseen

Jatkossa, haluaisitko jatkaa etäkoulutuksia vai siirtyä takaisin lähikoulutusten pariin?